# **Questacon** activity sheets

Teacher's Guide

## Weaving

## Background

Aboriginal and Torres Strait Islander peoples have used natural and renewable materials from the environment, coupled with scientific principles, to make objects like baskets and fish traps to catch and store food for thousands of years. The technique of weaving involves the interlacing of fibres in different directions which allows the final product to have strength, flexibility, and stretch. Weaving to this day remains a way of connecting to culture and Country. This activity allows for exploration of STEM, First Nations culture and sustainability.

#### **Materials**

- Variety of fibres to experiment with, such as:
  - Raffia palm
  - String
  - Paper
  - Scarves
  - Scrap fabrics
  - Wool
  - Natural materials, like long grasses, bull rush, bark or twigs
- Scissors

#### **Process**

Search online for basic paper weaving tutorials, such as <u>Art with Trista</u> on YouTube.

For examples of contemporary First Nations weaving, check out the <u>Tjanpi Desert Weavers</u> online.





### What questions could I ask?

- What do these materials have in common?
- Where can you find examples of weaving in your everyday life? (E.g baskets, chairs, clothes, hats, carpet etc.)
- What do you think First Nations peoples used these woven objects for?

## Classroom Set-up

Traditionally, weaving was done by Aboriginal and Torres Strait Islander peoples who share skills, stories, and knowledge.

Consider setting up the classroom to experience this cultural aspect, such as with cushions on the ground, outside in nature or on a large mat on the floor, promoting conversation and collaboration.

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## **Curriculum Links**

This activity provides a unique opportunity to engage students in learning about First Nations peoples as the Traditional Custodians and the first scientists, makers and innovators of this land and their continuing connection to Country. Weaving is a rich STEM activity with natural links to the Australian Curriculum that you can teach and assess in your classroom. These curriculum links include:

- Cross curricular priorities
  - Aboriginal and Torres Strait Islander Histories and Cultures
  - Sustainability
- General Capabilities
  - Intercultural understanding
  - Personal and social capability
  - Critical and creative thinking
- Science
  - Science as a human endeavour, an appreciation of the unique nature of science and scientific knowledge, including how current knowledge has developed over time through the actions of many people.
  - Science inquiry, posing questions; planning, conducting and reflecting on investigations.
- Technologies
  - Design and Technologies knowledge and understanding, the use, development and impact of technologies and design ideas across a range of technologies contexts.
  - Design and Technologies processes and production skills, the skills needed to create designed solutions.

- Mathematics
  - Number and algebra, recognise patterns.
  - Measurement and geometry, understanding of size, shape, relative position and movement of two-dimensional figures.



Figure 1: ACARA framework for the Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority

#### **Challenges!**

What is the longest connected chain you can make?

Can you weave something that will hold a certain weight?

Can you predict how much material is needed to make a basket vs. a pair of earrings?

Can you weave something that is flexible, but strong?

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## **First Nations Further Resources**

For further resources to support teaching First Nations STEM in your classroom, see the following websites and information providers:

#### **ABC News**

Pages including <u>Gambay</u>: a map of Australia's first languages. Curriculum resources through <u>BTN</u>.

#### **ACARA**

Aboriginal and Torres Strait Islander Histories and Culture (F-10 curriculum)

Teacher Background Information (available through the elaborations for curriculum descriptors)

#### <u>Australian Institute of Aboriginal and</u> Torres Strait Islander Studies (AIATSIS)

Curriculum Resources and Professional Development

#### Aboriginal & Torres Strait Islander Mathematics Alliance (ATSIMA)

**Teacher Resources** 

#### **Australians Together**

**Curriculum Resources** 

#### **CSIRO**

Two-way Science. An Integrated Learning Program for Aboriginal Desert Schools

#### **Deadly Science**

Teachers Guides and Classroom Resources

#### National Museum of Australia

Professional Development and Curriculum Resources

#### **Primary Connections**

Indigenous Perspectives Frameworks

#### **Reconciliation Australia**

Narragunnawali: Reconciliation in Education Resources

## What questions could I ask?

To support integrity-driven decision-making around First Nations curriculum resources, there are a number of core categories to consider evaluating resources:

- **Participation:** First nations participation in the development of content
- **Positioning:** how are First Nations peoples positioned throughout the resource?
- **Production:** making your own resources

Read more about critical self-reflections on history and the effects this has on pedagogical practises in the "<u>AIATSIS Guide to evaluating</u> <u>and selecting education resources</u>".

### Advance reconciliation in your classroom

The Narragunnawali: Reconciliation in Education platform from Reconcilliation Australia has the resources and tools for your school or early learning service to contribute to the reconciliation movement and foster knowledge and pride in Aboriginal and Torres Strait Islander histories, cultures and contributions.

Narragunnawali (pronounced narra-gunna-wally) means *alive, wellbeing, coming together and peace*. This is a word from the language of the Ngunnawal people, Traditional Custodians of the land on which Reconciliation Australia's Canberra office is located.



Learn more here!

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